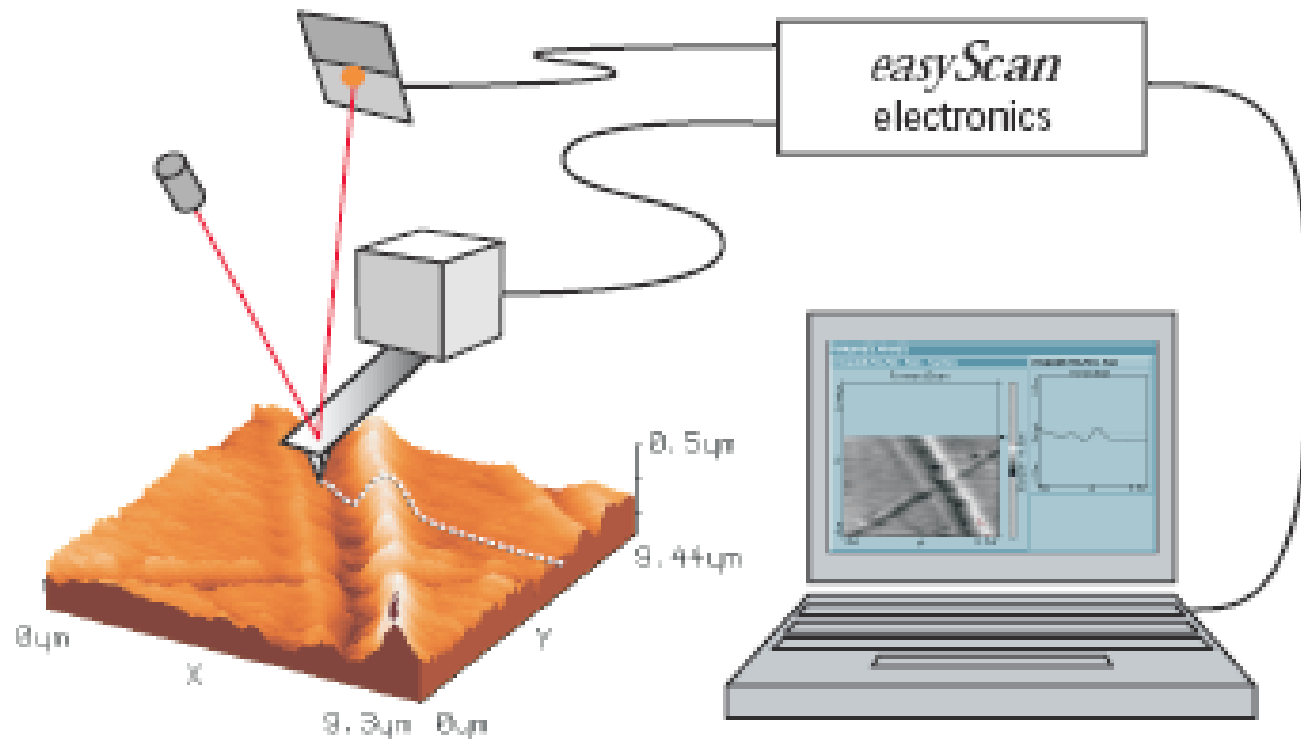


You're at the AFM

When the sensor tip comes in contact with the sample, a repulsive force acts on it, that increases with decreasing tip-sample distance. In the static force operating mode, the cantilever bending due to the force acting on the tip is measured using a laser beam deflection system.

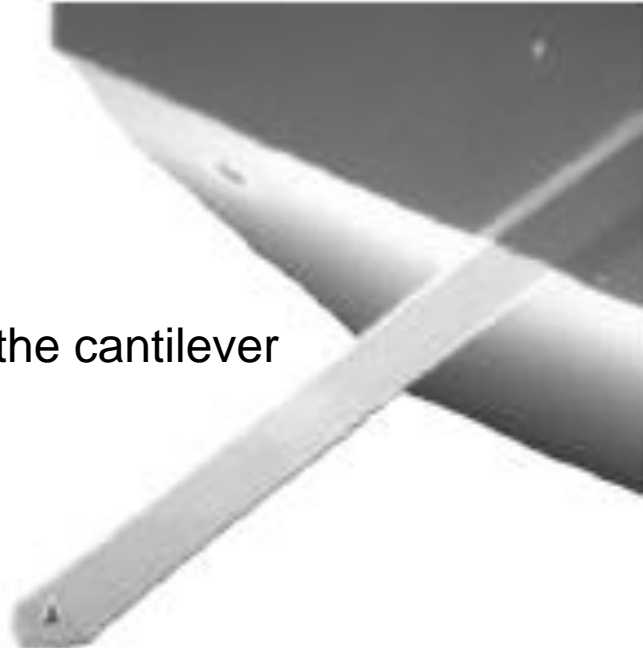


E-AFM system: Computer, Cantilever with deflection measurement system scanning the sample.

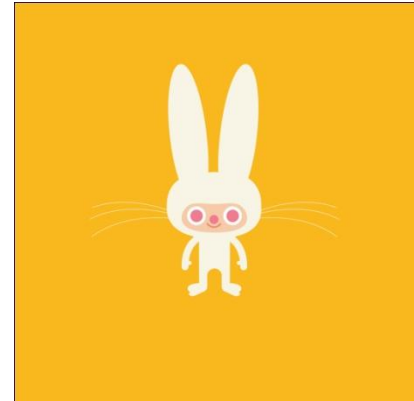
What's inside...

http://virlab.virginia.edu/VL/easyScan_AFM.htm

So.....what is the size of the tip?



The dark triangle on top of the cantilever



Cantilever: microfabricated silicon cantilever with integrated tip, 450 μm long, 50 μm wide.

Warning !

**This product contains a
Class 1 Laser**

Invisible laser radiation !

The laser is located behind the sensor.

Although the optical power should do no damage when the instrument is assembled, avoid looking directly into the laser beam.

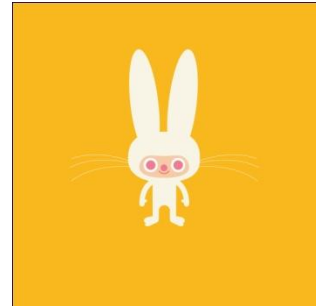
Laser source information:

Wavelength: 830nm

Optical power: <0.4mW

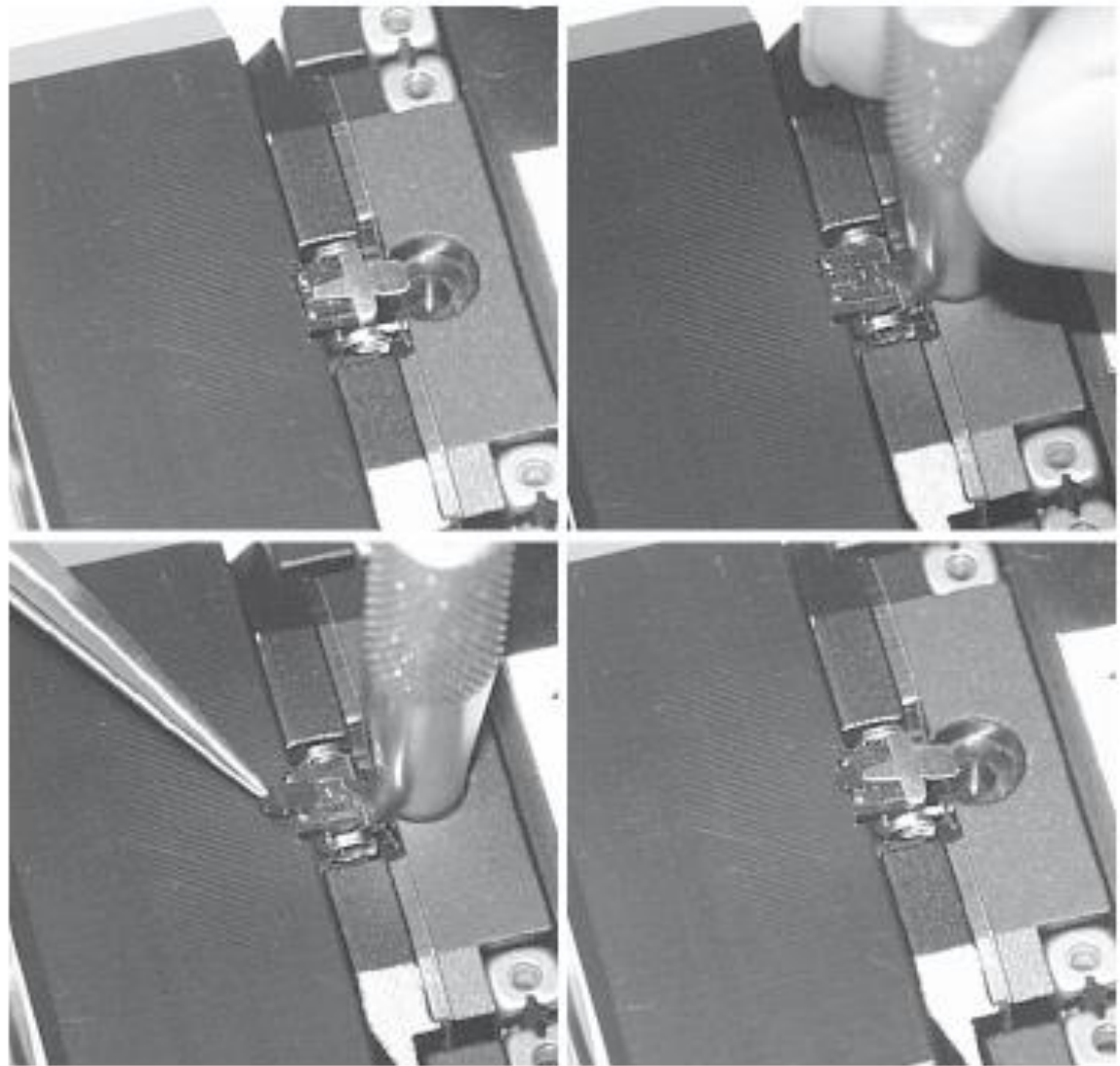
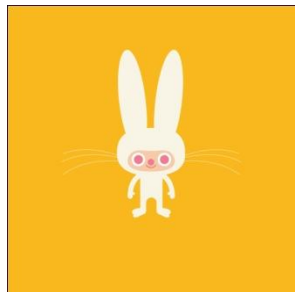
Class one Laser

Where is the tiny tip/probe in this picture?



Sensor: Left: Sensor alignment system, Right: Sensor chip viewed from the top.

What if the
tip breaks?



Mounting the sensor: top left: The sensor holder spring, top right: Plugging in the sensor insertion tool, bottom left: inserting the sensor. Bottom right: a correctly built in sensor.

Images

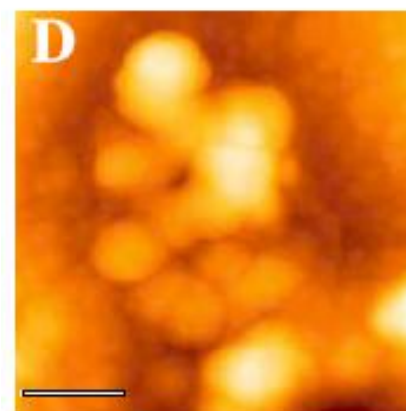
- *Staphylococcus aureus* bacteria
 - when you are healthy, your body easily fights off these wee vermin.
- The name "*Staphylococcus*" comes from the Greek *staphyle*, meaning a bunch of grapes, and *kokkos*, meaning berry, and that is what Staph look like under the microscope, like a bunch of grapes or little round berries.
- Spherical bacterium, on/in nose and on skin.

Biochemical, Molecular Genetic, and Structural Analyses of the Staphylococcal Nucleoid

Kazuya Morikawa,^{1,*} Ryosuke L. Ohniwa,² Joongbaek Kim,² Sayaka L. Takeshita,¹
Atsushi Maruyama,¹ Yumiko Inose,¹ Kunio Takeyasu,² and Toshiko Ohta¹

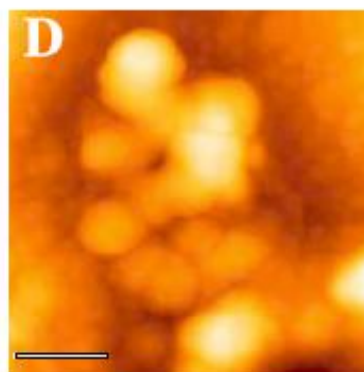
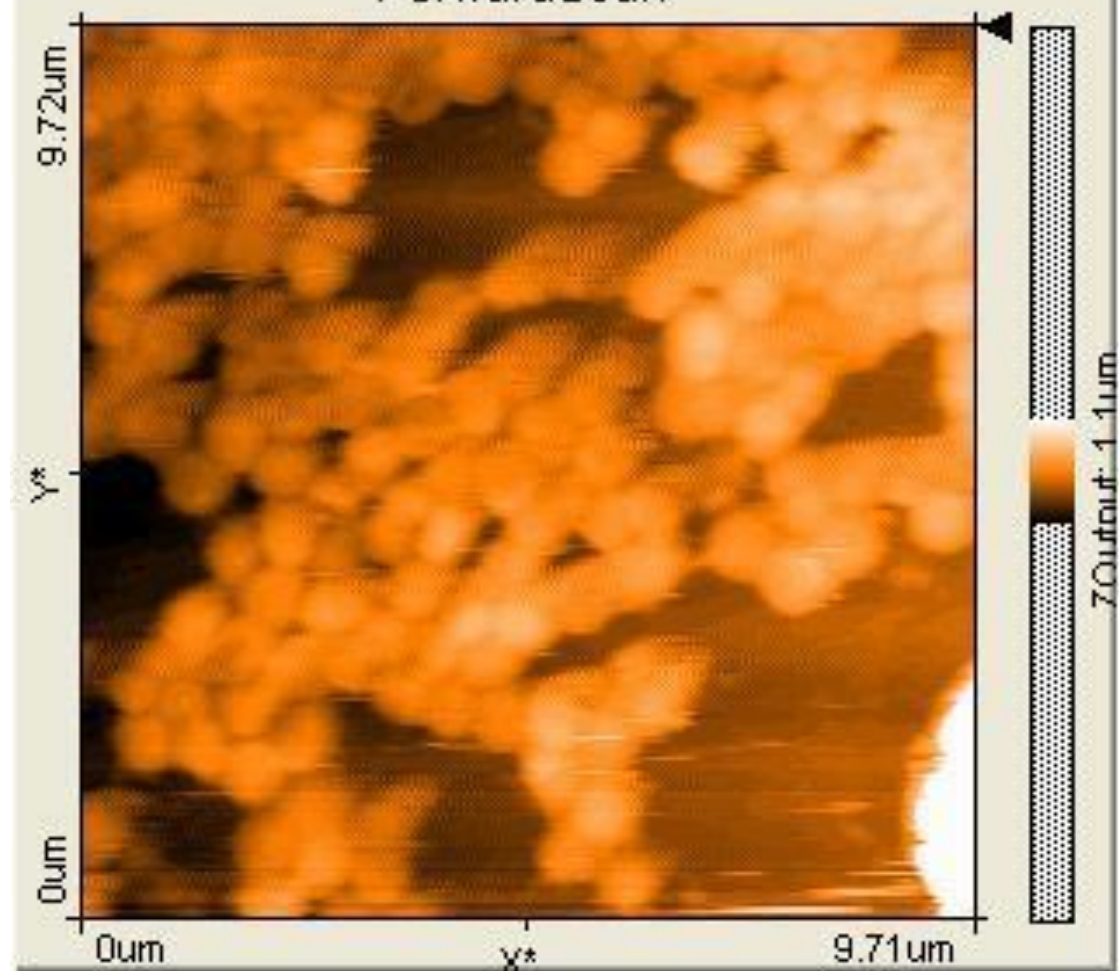
¹*Institute of Basic Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tennoh-dai, Tsukuba 305-8575, Japan*

²*Laboratory of Plasma Membrane and Nuclear Signaling, Kyoto University Graduate School of Biostudies, Kitashirakawa Oiwake-cho, Sakyo-ku, Kyoto 606-8502, Japan*



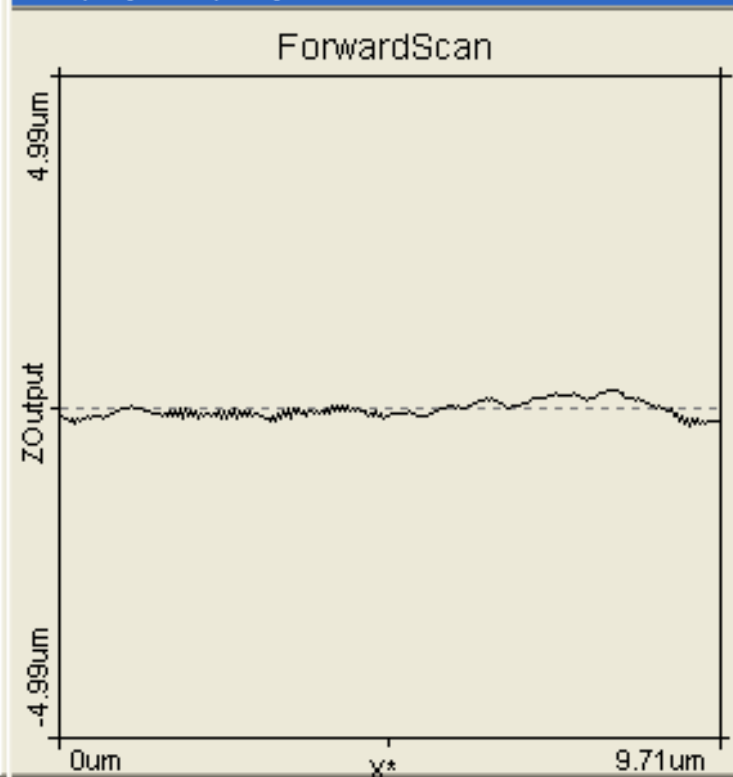
ZOutput[0:256,256] - Raw - TopView

ForwardScan

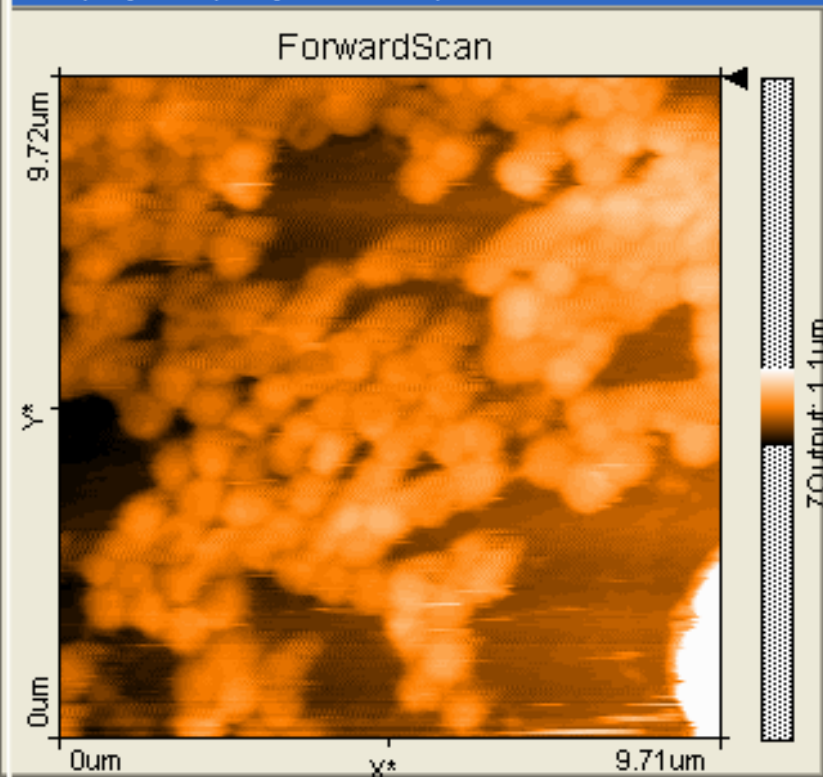


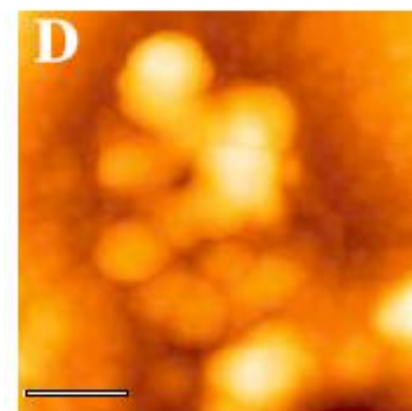
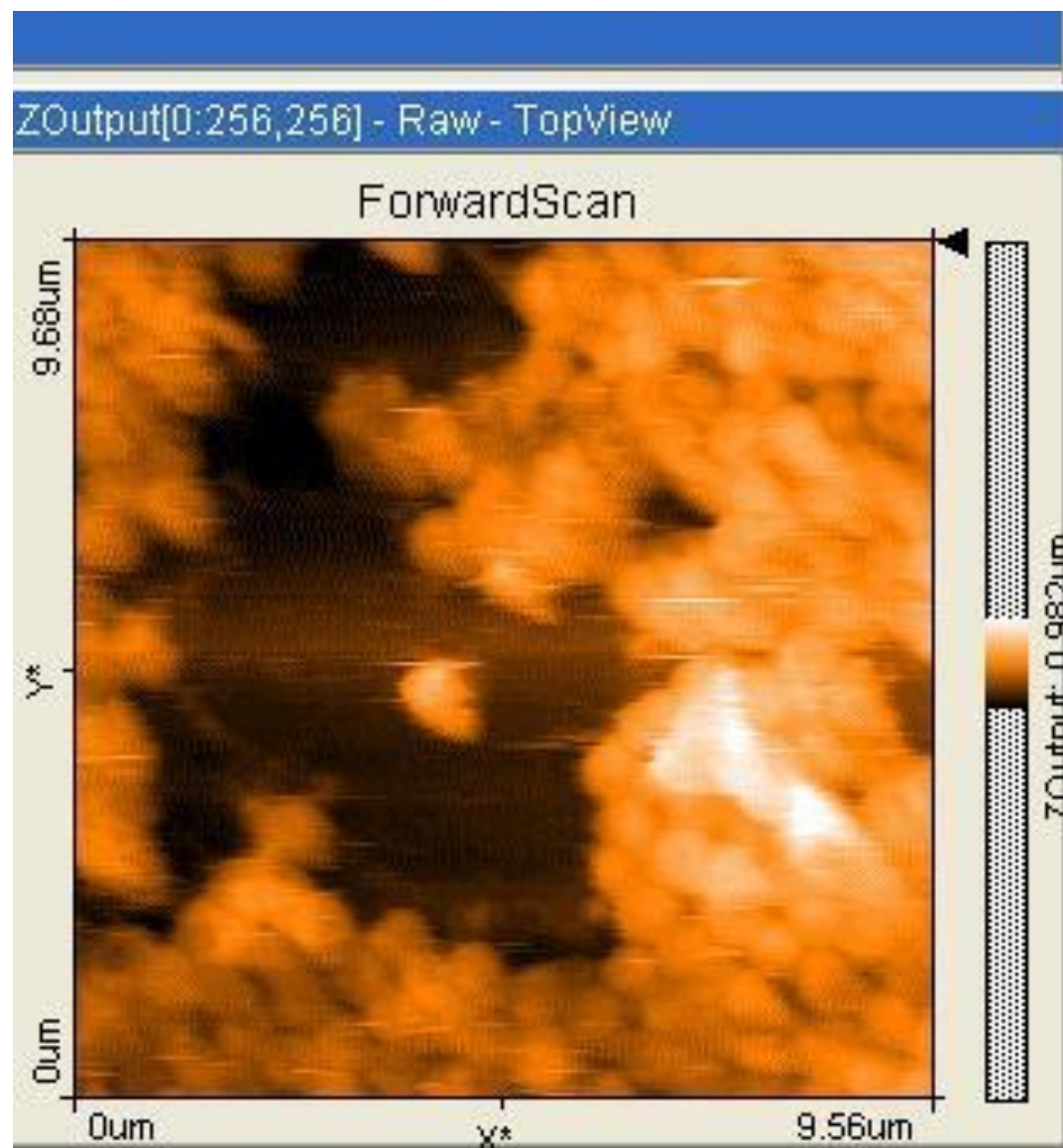
Datatypes[1], Views[2]

ZOutput[0:256,256] - Raw - LineView



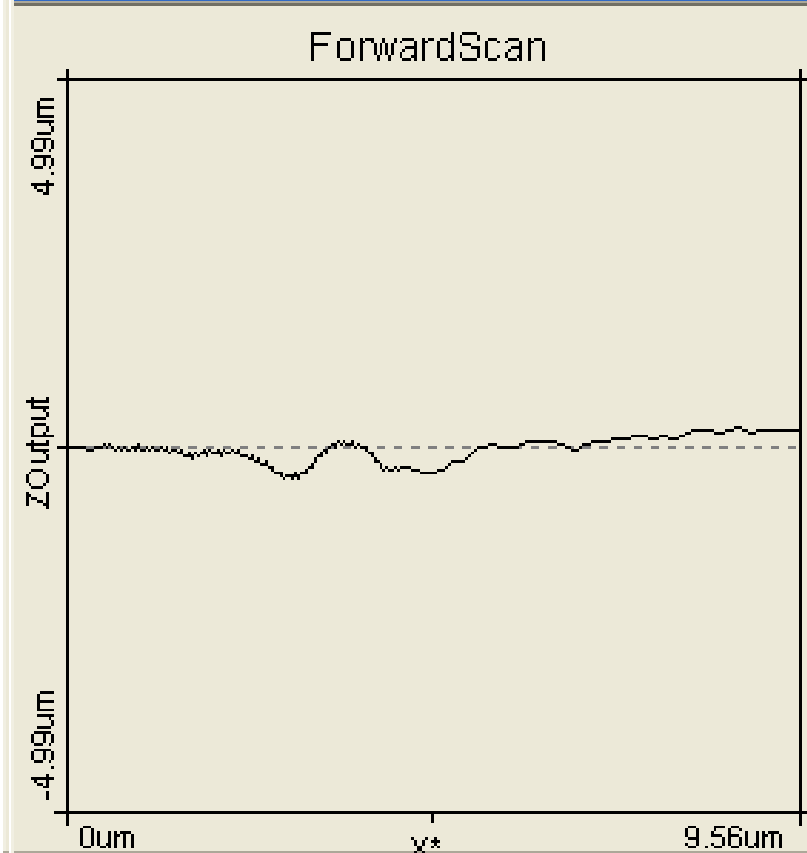
ZOutput[0:256,256] - Raw - TopView



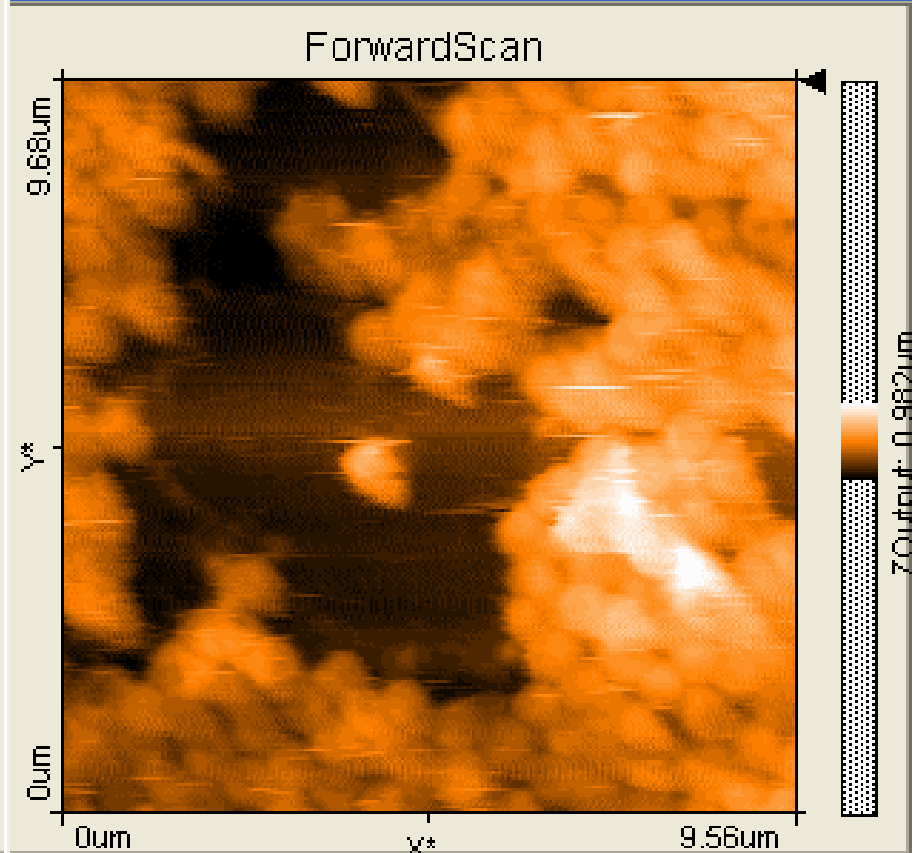


Datatypes[1], Views[2]

ZOutput[0:256,256] - Raw - LineView



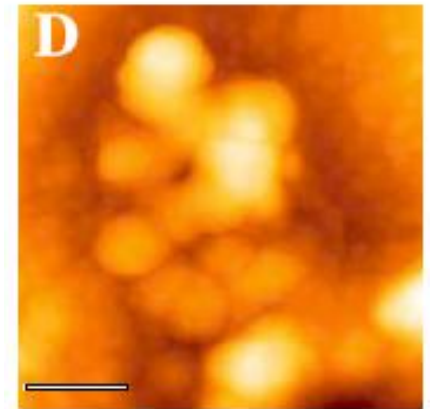
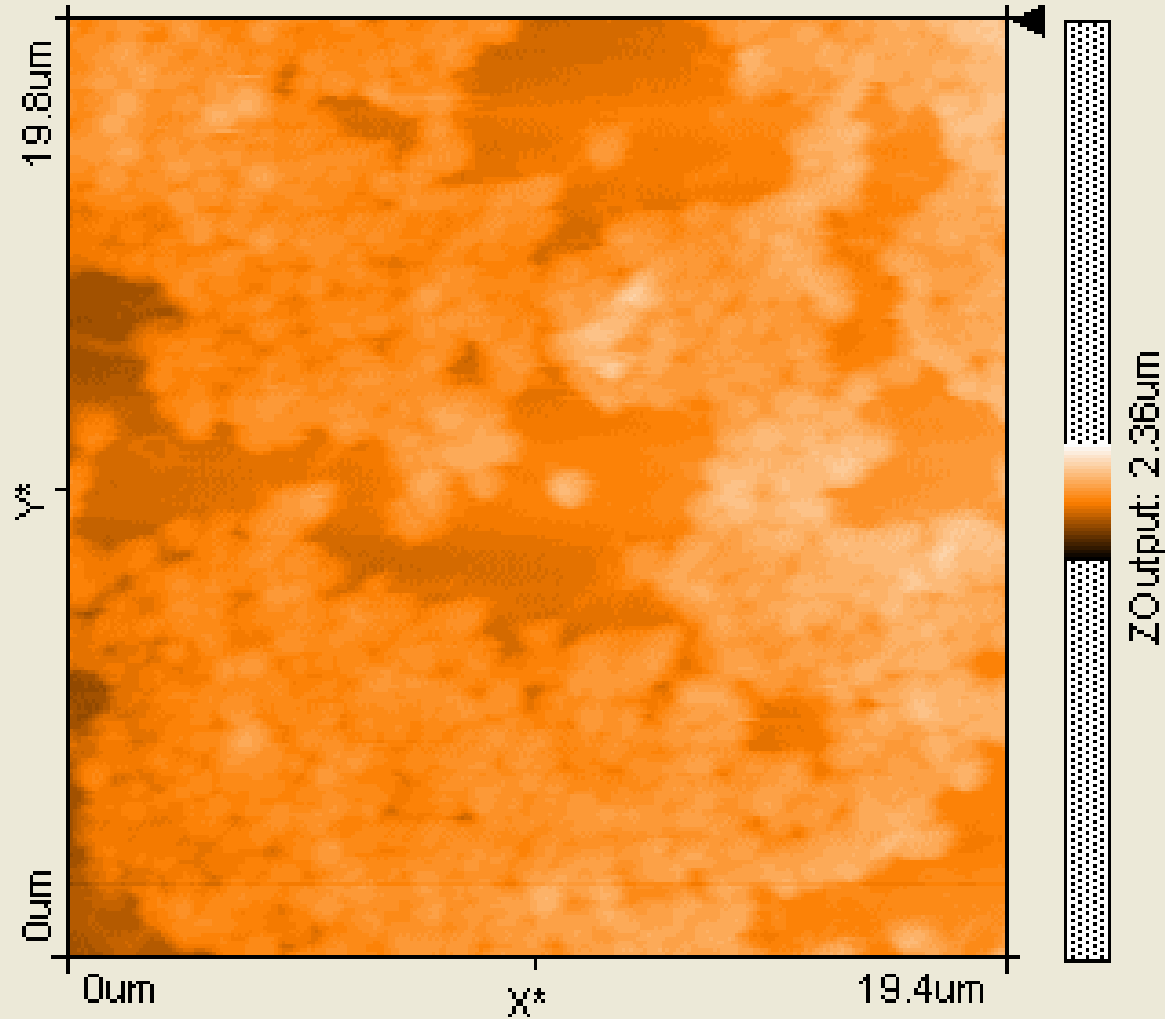
ZOutput[0:256,256] - Raw - TopView



What happens to the Raw-LineView
when you reduce the z-data range?

ZOutput[0:256,256] - Raw - TopView

ForwardScan



All most perfect...what is the problem with this image?